

CADRE Quick-Look

Catalyst for Air & Space Power Research Dialogue



Airspace Management In Global CONOPS

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Problem. US Joint Forces Command's (JFCOM) Joint Lessons Learned: Operation Iraqi Freedom (OIF) cites airspace management as an opportunity for improvement. More specifically, discussions with numerous sources throughout Air Mobility Command (AMC) and Central Command Air Forces (CENTAF) reflect concern over near misses and poor processes for separating fast movers from mobility aircraft (to include intratheater, intertheater, and refueling). These observations are not new and have been noted as "lessons learned" in most major exercise after-action reports. Looking forward, the battle space is becoming saturated with unmanned aerial vehicles (UAV) and ballistic projectiles being launched from the ground, sea, and air; making airspace management in the battlespace evermore complex.

During OIF, the combined air operations center (CAOC) made improvements to processes and procedures that made the airspace safer. However, because the CAOC staff is manned with personnel on a rotational basis, the people responsible for those changes rotated back to their home units prior to having their improvements institutionalized. This manning policy has impeded the Air Force's ability to systematically transfer first-hand knowledge and lessons learned to the planners who will prepare airspace management for the next war. Although those improvements are valuable, still more needs to be done.

Discussion. Written documents and interviews with action officers from AMC, CENTAF, and other sources have produced the following list of problems that occurred during OIF:

1. There were too few trained and combat-ready air traffic controllers and too little associated equipment to relieve the Special Tactics Teams in the combat zone's airport traffic areas.
2. Personnel were reporting to the CAOC and the Air Mobility Division (AMD) without proper training and certification.
3. The interface between the air tasking order (ATO) and air control order (ACO) process and the Tanker Airlift Control Center (TACC) did not provide adequate route deconfliction.
4. There is no central point for route deconfliction of all aircraft flying on the ATO. Software called RAT (Route Analysis Tool) is available that deconflicts routes, but that tool is not used universally throughout DOD. SOF is using the tool at the Joint Special Operations Aviation Component (JSOAC) level.
5. Joint doctrine and other publications do not reflect the current environment in which coalition forces are used to prosecute wars. The airspace control discussions within the Military Operations Other Than War (MOOTW) doctrine contain verbiage that is more applicable to today's coalition fighting environment than that contained in our traditional, unilateral, warfighting airspace control doctrine and should be reworded to reflect that reality.
6. The AMD within CAOC is brought into the ATO/ACO planning cycle too late, causing it to operate in a reactive rather than in a planning and coordinating manner. In particular, the Air Refueling Element (ARE) portion of the AMD needs to be an integral player in the production of the ATO and ACO to ensure efficient airspace operations and to optimize the on-station fuel available for mission execution.
7. A systematic methodology to communicate last minute changes to the ACO/ATO/SPINs (Special Instructions) to mobility crews needs to be developed.
8. There is no systematic process to transfer the flight arrival, approach, and departure procedures, that have been developed in a classified environment by airspace developers on the ground, through the CAOC to the TACC and eventually into the mobility aircraft's mission database.
9. Although the Air Force Tactics, Techniques, and Procedures (AFTTP) (I) 3-2.16, *Multiservice Procedures for Integrated Combat Airspace Command and Control* does mention airlift corridors, they are not specified as procedural airspace control measures.

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10. Air Combat Command's Combined Air and Space Operations Center-eXperimental (CAOC-X) does not have representation from AMC.

11. While Joint Mission Planning System (JMPS) is seen as the future vision for all air mission planning, there has been no validation that its full capabilities have been exploited to aid in route congestion prediction or deconfliction.

None of the above observations are listed in JFCOM's report (either the unclassified or classified versions).

Possible courses of action: Exploiting the existing knowledge before it is lost or distorted is the most important concern. A Tiger Team of experienced and knowledgeable experts should be quickly formed to capture and document this perishable knowledge so that it can be used in future systems, schoolhouses, and in the development of airspace management doctrine.

This team should be sponsored by the Chief of Staff of the Air Force and include members with actual OIF combat-experience, including but not limited to, a director of mobility forces (DIRMOBFOR), AMD cell chief, an ARE action officer, and a pilot or navigator from each of the C-17, C-130, and KC-135 aircraft. It must include, as a minimum, current staff officers representing TACC Flight Planning, AMC/A5 Systems Integration, CENTAF/A3 Airspace Management, 505th Training Squadron AOC/AMD (courseware expert), 509th Weapons Squadron, and CAOC-X.

Potential expected benefits of the effort could be:

1. Establishment of a *standard use mobility aircraft flight route* (SMAFR, pronounced “smaffer”) as a procedural airspace control measure. The precedent has been set by the Standard Use Army Aircraft Flight Routes (SAAFR) procedural airspace control measure found in doctrine regarding combat airspace management.
2. Improved electronic interface between the battlefield, AOC, AMD, TACC, and the mobility aircrews, resulting in the improved communication and distribution of in-flight procedures.
3. Validation that there are no gaps in the planned capabilities of JMPS.
4. Complete a review of all DOD, Joint, and Air Force publications regarding combat airspace management and, where appropriate, recommended changes that contain a mobility perspective.
5. Design cookie-cutter arrival, departure and enroute procedures for combat airspace that can be used as the design template for emerging battlespace environments.

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